

US EPA ARCHIVE DOCUMENT



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

January 13, 2014

OFFICE OF  
SOLID WASTE AND  
EMERGENCY RESPONSE

VIA E-MAIL

Mr. Walter Stone, Senior Vice President, Plant Operations  
GenOn Energy  
1000 Main Street  
Houston, Texas 77002

Re: Request for Action Plan regarding GenOn Energy – Shawville Generating Station

Dear Mr. Stone,

On September 6, 2012 the United States Environmental Protection Agency ("EPA") and its engineering contractors conducted a coal combustion residual (CCR) site assessment at the GenOn Energy – Shawville Generating Station. The purpose of this visit was to assess the structural stability of the impoundments or other similar management units that contain "wet" handled CCRs. We thank you and your staff for your cooperation during the site visit. Subsequent to the site visit, EPA sent you a copy of the draft report evaluating the structural stability of the unit at the GenOn Energy – Shawville Generating Station and requested that you submit comments on the factual accuracy of the draft report to EPA. Your comments were considered in the preparation of the final report.

The final report for the GenOn Energy – Shawville Generating Station can be accessed at the secured link below. The secured link will expire on February 28, 2014.

Here is the link: <http://www.hightail.com/download/eINMS3duTWNtNEtVbDhUQw>

This report includes a specific condition rating for each CCR management unit and recommendations and actions that our engineering contractors believe should be undertaken to ensure the stability of the CCR impoundment(s) located at the GenOn Energy – Shawville Generating Station. These recommendations are listed in Enclosure 1.

Since these recommendations relate to actions which could affect the structural stability of the CCR management units and, therefore, protection of human health and the environment, EPA believes their implementation should receive the highest priority. Therefore, we request that you inform us on how you intend to address each of the recommendations found in the final report. Your response should include specific plans and schedules for implementing each of the recommendations. If you will not implement a recommendation, please provide a rationale. Please provide a response to this request by **February 14, 2014**. Please send your response to:

Mr. Stephen Hoffman  
U.S. Environmental Protection Agency (5304P)

1200 Pennsylvania Avenue, NW  
Washington, DC 20460

**If you are using overnight or hand delivery mail, please use the following address:**

Mr. Stephen Hoffman  
U.S. Environmental Protection Agency  
Two Potomac Yard  
2733 S. Crystal Drive  
5<sup>th</sup> Floor, N-5838  
Arlington, VA 22202-2733

You may also provide a response by e-mail to [hoffman.stephen@epa.gov](mailto:hoffman.stephen@epa.gov), [dufficy.craig@epa.gov](mailto:dufficy.craig@epa.gov), [kelly.patrickm@epa.gov](mailto:kelly.patrickm@epa.gov) and [englander.jana@epa.gov](mailto:englander.jana@epa.gov).

You may assert a business confidentiality claim covering all or part of the information requested, in the manner described by 40 C. F. R. Part 2, Subpart B. Information covered by such a claim will be disclosed by EPA only to the extent and only by means of the procedures set forth in 40 C.F.R. Part 2, Subpart B. If no such claim accompanies the information when EPA receives it, the information may be made available to the public by EPA without further notice to you. If you wish EPA to treat any of your response as "confidential" you must so advise EPA when you submit your response.

EPA will be closely monitoring your progress in implementing the recommendations from these reports and could decide to take additional action if the circumstances warrant.

You should be aware that EPA will be posting the report for this facility on the Agency website shortly.

Given that the site visit related solely to structural stability of the management units, this report and its conclusions in no way relate to compliance with RCRA, CWA, or any other environmental law and are not intended to convey any position related to statutory or regulatory compliance.

Please be advised that providing false, fictitious, or fraudulent statements of representation may subject you to criminal penalties under 18 U.S.C. § 1001.

If you have any questions concerning this matter, please contact Mr. Hoffman in the Office of Resource Conservation and Recovery at (703) 308-8413. Thank you for your continued efforts to ensure protection of human health and the environment.

Sincerely,  
/Barnes Johnson /, Director  
Office of Resource Conservation and Recovery

Enclosure

**GenOn Energy – Shawville Generating Station Recommendations (from the final assessment report)****CONCLUSIONS**

Based on the fact that the impoundment was constructed with a single liner system and an interconnected decant system, Ash Ponds A and B have been rated as a single impoundment. Based on the ratings defined in the USEPA Task Order Performance Work Statement (Satisfactory, Fair, Poor and Unsatisfactory), the information reviewed and the visual assessment, the overall condition of Ash Ponds A and B is considered to be SATISFACTORY. Acceptable performance is expected under all loading conditions; however, some minor deficiencies exist that require repair and/or additional studies or investigations. The deficiencies include the following:

- Heavy vegetation along the outer slope of the southwestern embankment of Ash Pond B limits visual inspection and may encourage animal burrowing.
- Heavy vegetation, including large trees, exists along outer slope of the northwestern embankment of Ash Ponds A and B. This limits visual inspection and may encourage animal burrowing.

Other than the conditions cited above, the owner has implemented regular visual inspections and performs routine maintenance which appears to be sufficient to keep the impoundment in good working order.

The Flood Insurance Study for Clearfield County, Pennsylvania shows that Ash Ponds A and B are located within the 100-year floodplain of the West Branch of the Susquehanna River. The Flood Insurance Study did not include a detailed study to predict the 100-year flood elevation of the West Branch of the Susquehanna River at this location. The limits of the floodplain indicated on Map Panel 42033C0340D are based on approximate methods and are interpreted from topographic mapping. Based on this mapping, it appears that the interpreted 100-year flood elevation is relatively close to the crest elevation and normal operating water elevation in Ash Ponds A and B. It appears that floodwaters in the West Branch of the Susquehanna River do not pose a significant risk of scour or erosion to the outer slope of the northwestern embankment of the impoundment and are unlikely to interact with water impounded within the ash ponds.

No hydrologic or hydraulic analyses are on record for the impoundment to determine the likelihood of overtopping due to precipitation during various design storm events. The operating pond water level, however, provides approximately 3 to 4 feet of freeboard that would accommodate the direct runoff from a significant precipitation event including the Probable Maximum Flood.

**RECOMMENDATIONS**

Based on the findings of our visual assessment and review of the available records for Ash Ponds A and B, O'Brien & Gere recommends that additional maintenance of the embankments be performed to correct the deficiencies cited in the Conclusions of the final report.

**Urgent Action Items:**

None of the recommendations are considered to be urgent, since the issues noted above do not appear to threaten the structural integrity of the dam in the near term.

**Long Term Improvement:**

The deficient conditions observed during the assessment do not require immediate attention, but should be implemented in the near future as part of a regular maintenance plan. The recommended maintenance/improvement actions are provided below:

#### **Ash Pond A**

- Inboard slopes:
  - o Continue to monitor all inboard slopes for signs of erosion. Repair in accordance with an engineered design.
- Outboard slopes:
  - o Continue to monitor the outboard slopes of the embankments, primarily the northwestern and northeastern sides, for signs of seepage, sliding, erosion, and animal burrowing.
  - o Increase maintenance activities to control the heavy vegetation along the outer slope of the northwestern embankment adjacent to the gravel access drive for improved visual inspection of the diked portion of this embankment.
  - o Evaluate the condition of the large trees along the outboard slope of the northwestern embankment, primarily those above the impoundment bottom elevation. Diseased or dead trees should be removed.
- Additional studies:
  - o Perform a hydrologic and hydraulic analysis of the impoundment for the 1-year through 100-year, 24-hour duration design storm events to determine the adequacy of the provided freeboard, the gravity emergency overflow between Pond A and Pond B and the upslope diversion swales.
  - o Perform a hydrologic and hydraulic analysis of the West Branch of the Susquehanna River at this location in order to determine the 100-year flood elevation and anticipated flow velocities.

#### **Ash Pond B**

- Inboard slopes:
  - o Continue to monitor all inboard slopes for signs of erosion. Repair in accordance with an engineered design.
- Outboard slopes:
  - o Continue to monitor the outboard slopes of the embankments, primarily the northwestern and southwestern sides, for signs of seepage, sliding, erosion, and animal burrowing.
  - o Increase maintenance activities to control the heavy vegetation along the outer slope of the northwestern embankment adjacent to the gravel access drive for improved visual inspection of the diked portion of this embankment.
  - o Evaluate the condition of the large trees along the outboard slope of the northwestern embankment, primarily those above the impoundment bottom elevation. Diseased or dead trees should be removed.
  - o Increase maintenance activities to control the heavy vegetation on the outboard slope of the southwestern embankment above the stormwater management area to facilitate visual inspection of the slope for signs of erosion, movement, seepage or animal burrows.
  - o Continue to monitor the stormwater management area for signs of erosion due to stormwater runoff from upstream areas. Repair in accordance with an engineered design as needed.
- Additional studies:
  - o Perform a hydrologic and hydraulic analysis of the impoundment for the 1-year through 100-year, 24-hour duration design storm events to determine the adequacy of the provided freeboard, the gravity emergency overflow between Pond A and Pond B and the upslope diversion swales.

- o Perform a hydrologic and hydraulic analysis of the West Branch of the Susquehanna River at this location in order to determine the 100-year flood elevation and anticipated flow velocities.
- o Perform ground run survey at the cross-section modeled in GeoSyntec's slope stability analysis to confirm the assumption that the existing embankment geometry is the same as the design geometry.

#### **Monitoring and Future Inspection**

O'Brien & Gere recommends consideration of independent inspections by licensed dam safety engineers on at least a biennial basis until the plant is decommissioned and a closure plan is implemented. Future inspections may be required by the Pennsylvania Department of Environmental Protection should they determine that these impoundments will be regulated in the future.

#### **Time Frame for Completion of Repairs/Improvements**

The improvements, surveys, engineering and repairs recommended in this report may be required or may be rendered moot by an overall closure plan for the impoundments if the anticipated plant decommissioning occurs as scheduled in 2015. Completion of these items may be deferred until that time, unless long-term continued operation of the plant is anticipated.